DPF 2/6...

6-Cavity Duplexer for the 160 MHz Band

DESCRIPTION

- The DPF 2/6... is a 6-cavity duplex filter for duplex radiotelephones.
- This duplexer is delivered in a low band version type DPF 2/6 L, tunable within 138 - 156 MHz and a high band version type DPF 2/6 H, tunable within 152 - 175 MHz. These models are again delivered in 3 submodels, each dedicated to work with a certain duplex spacing. See "Ordering information" below.
- The DPF 2/6... models are primarily intended for equipment, where the TX and RX operate on single frequencies, but they can also, however with slightly reduced data, be used where the TX and RX operate on several channels, i.e. within a certain port bandwidth. In the last case, factory-tuning is recommended.
- The filter has very small physical dimensions owing to the use of high-Q, temperature compensated helical resonators.
- The housing is made of extruded aluminium, the chassis of passivated steel, and teflon insulation has been applied in the rigid coaxial cables and in the connectors.
- The filter is coated with black vinyl to prevent corrosion.



ORDERING DESIGNATIONS

ТҮРЕ	PRODUCT NO.	TUNING RANGE (MHZ)	DUPLEX SPACING (MHZ)
DPF 2/6 L-4/6-UHF	200000132	138 - 156	4 - 6
DPF 2/6 L-6/8-UHF	200000134	138 - 156	6 - 8
DPF 2/6 L-8/10-UHF	200000137	138 - 156	8 - 10
DPF 2/6 H-4/6-UHF	200000103	152 - 175	4 - 6
DPF 2/6 H-6/8-UHF	200000104	152 - 175	6 - 8
DPF 2/6 H-8/10-UHF	200000117	152 - 175	8 - 10
DPF 2/6 L-4/6-N	200000130	138 - 156	4 - 6
DPF 2/6 L-6/8-N	200000136	138 - 156	6 - 8
DPF 2/6 L-8/10-N	200000141	138 - 156	8 - 10
DPF 2/6 H-4/6-N	200000100	152 - 175	4 - 6
DPF 2/6 H-6/8-N	200000108	152 - 175	6 - 8
DPF 2/6 H-8/10-N	200000113	152 - 175	8 - 10

ORDERING INFORMATION

When ordering, please use the table above to select the appropriate ordering designation for the desired filter type. If duplex TX and RX frequencies are stated when ordering, the duplexers are delivered factory adjusted. If TX and RX frequencies are not stated, the filters are delivered non-adjusted.

Special configurations of this filter type may be quoted on request. For instance, the filter can be delivered with other connector types or with flying leads (RG 316 coaxial cable) terminated with connectors or for soldering-connection.

SPECIFICATIONS

ELECTRICAL		
MODEL	DPF 2/6	
TX/RX FREQUENCY	DPF 2/6 L : 138 - 156 MHz DPF 2/6 H : 152 - 175 MHz	
MAX. INPUT POWER	50 W	
INSERTION LOSS TX-ANT AND ANT-RX (at 4.5 MHz duplex spacing) Single-channel tuned Multi-channel tuned, 1.5 MHz BW	≤ 1.2 dB (typ. 1.0 dB) ≤ 1.4 dB (typ. 1.2 dB)	
TX NOISE SUPPRESSION ON RX-FREQUENCY Single-channel tuned Multi-channel tuned, 1.5 MHz BW	> 80 dB > 60 dB	
RX ISOLATION ON TX-FREQUENCY Single-channel tuned Multi-channel tuned, 1.5 MHz BW	> 80 dB > 60 dB	
DUPLEX SPACING	4 - 10 MHz (adjustable)	
IMPEDANCE	Nom. 50 Ω	
SWR	≤ 1.5	
MECHANICAL		
TEMP. RANGE	−30° C → +60° C	
FREQ. STABILITY	Approx. 5 ppm/° C	
ONNECTORS UHF-female or N-fem		
DIMENSIONS (L x W x H)	211 x 154 x 33 mm	
WEIGHT	Approx. 940 g	

TYPICAL RESPONSE CURVES @ 4.5 MHz DUPLEX SPACING



TYPICAL RESPONSE CURVES @ 9 MHz DUPLEX SPACING

INSERTION LOSS LOW PORT [dB]	DUPLEXER TYPE: PORT ATTEN	INSERTION LOSS HIGH PORT [dB]	
0 LOW	0 LOW	HIGH	0 HIGH
0.5	10		0.5
1.0	20		1.0
1.5	30		1.5
2.0	40		2.0
2.5	50		2.5
3.0	60		3.0
3.5	70		3.5
4.0	80		4.0
4.5	90		4.5
5.0 -8 -6 -4 -2	100 V	WHz] +2 +4 +6 +8	5.0



PROCOM A/S reserve the right to amend specifications without prior notice. 14/02/14

